

REMARKS

Each of the claims stands rejected over Porter '645 and/or Porter '589 in view of Menchetti. For the reasons set forth below and the additional evidence, namely industry declarations, submitted herewith, Applicant respectfully submits that the claimed invention would have to be non-obvious to a person of ordinary skill at the time the invention was made.

As the starting point, there is no disagreement that the invention is new. The newness of the invention is undisputed, notwithstanding the fact that in general terms pre-fabricated wall panel technology has existed for many years. Yet no one has come up with the present invention.

The prior art of record demonstrates conventional thinking regarding pre-fabricated wall panel technology. There is no disclosure of the wall panel thickness being four inches plus/minus as claimed in combination with the other features. Nor is this disclosed in light of the cost and inconvenience incurred by a trim carpenter furring jambs around windows and doors to accommodate trim pieces around those windows and doors. Indeed, the references are absolutely silent on this issue, undermining even the existence of a "prima facie" case of obviousness.

Moreover, Applicant respectfully takes strong exception with the characterization of the present invention as merely "optimizing" the panel thickness. Actually, in many respects just the opposite is true. In the context of wall paneling, optimizing the thickness under conventional thinking means increasing the wall thickness. This is for at least two reasons. First, wall thickness, especially including any insulation in the wall, is directly related to the thermal insulation characteristics of the wall, typically expressed in an R-value. The thicker the wall, the better the R-value. Hence, "optimization" of wall thickness would suggest making a wall thicker

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in some amount. Since, in the case of the pre-fabricated wall panels in question here, optimization of a 4½" panel or 5½" panel typically found in the prior art would mean increasing this thickness --- in other words, teaching away from the 4" plus/minus thickness of the present invention as claimed. Moreover, in conventional thinking "optimizing" the wall thickness would mean increase the wall thickness for structural reasons. Specifically, the thicker the wall, the greater the structural strength and rigidity of the wall panel by, for example, increasing the cross-sectional moment of inertia. Again, conventional wisdom teaches towards making the 4½" or 5½" wall panel thicker, not reducing the thickness to 4". Moreover, even any prior art indicating towards making the wall thickness smaller would not provide any suggestion to stop at 4". Why not 3½"? Why not 3"? Such hypotheticals are not present here, but illustrate the point that conventional wisdom does not suggest optimization at 4". Indeed, 4" de-optimizes conventional aspects of a pre-fabricated wall panel, namely thermal insulation and structural strength.

Moreover, the law requires that in order for a combination of references to render a patent claim obvious, there must be a suggestion or motivation to make the claim combination. Here, there is no such suggestion or motivation whatsoever to combine the prior references of record.

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). Here there was none,...only hindsight reconstruction.

Carella v. Starlight Archery, 231 USPQ 644, 647 (Fed. Cir. 1986).

The requirement for suggestion or motivation to make the change is especially important in the context of a simple invention. Even were the present invention considered simple, it is well settled that simplicity does not negate patentability.

Nor is the present invention fairly characterized as merely changing panel thickness. Rather, it is the panel thickness in combination with the other elements of the claim. This is to be understood in the context of not only what the invention is, but what the invention eliminates. In particular, the invention eliminates the material and labor incurred in furring window jambs and doors. This provides several advantages, notably including significant cost advantages.

Submitted as attachments hereto are the Declarations of Dave Sheidler and Ray Micham. The Patent Office "must always consider [secondary consideration] evidence in connection with the determination of obviousness." In re Sernaker, 217 USPQ 1, 7 (Fed. Cir. 1983) (citation omitted). These Declarations are based on people of experience in this industry. They characterize the invention as being "fabulous," "not obvious," that it has become the "standard" for their company, and that they "would not go back to the prior approach" having experienced the advantages of the 4" panel feature. These Declarations under oath further recite cost savings upwards of \$20 per opening (e.g. per window or door). Attached hereto as Exhibit 1 is data from the National Homebuilder's Association for housing starts since 1978. If one conservatively estimates 20 openings per house, and if one estimates only a 5% market penetration with the present invention, based on the National Homebuilder's Association data, if one were to assume 1.5 million housing starts per year, the estimated cost savings of furring windows, doors and jambs would be as follows:

1.5 million housing starts per year x 0.05 market penetration x 20 openings per house x \$20 per opening = \$30,000,000 per year cost savings

Such percentile cost savings demonstrate very meaningful potential commercial success attributable to the 4" plus/minus panel attribute of the present invention as claimed. Commercial success is strong evidence that an invention is non-obvious. Moreover, industry praise such as

that set forth in the Declarations of Dave Sheidler and Ray Micham likewise are evidence of

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non-obviousness. Moreover, such Declarations demonstrate a long felt need of the invention, namely to eliminate unnecessary expense attributable to furring window and door jambs in the context of pre-fabricated wall panels. "The objective evidence, again composed of real world facts, is worthy of great weight in this case." Rosemont, Inc. v. Beckman Instruments, Inc. 221 USPQ 1, 7 (Fed. Cir. 1984) (citing secondary consideration evidence such as commercial success, long felt need, praise of the invention and others in support of non-obviousness conclusion.).

The claims have been amended to reflect this advantage, namely, independent claims 1 and 19 have been amended to add the language "usable with a door or window jamb without jamb furring." This capability is new in the context of the claim combination. As set forth in the additional evidence submitted herewith, this provides a significant advantage of prior approaches. The use of jamb furrings in the context of these pre-fabricated wall panel devices, prior to the invention, was "just the way it is" according to the declaration evidence. The present invention eliminates the time and expense associated with this, leading to a strong, high insulation capability wall panel with an attractive trim package without the need of furring expense. This addition in efficiency in savings and cost is exactly the type of advance the patent laws were designed to promote and protect. The evidence submitted herewith, from knowledgeable people in the industry, underscores this conclusion. If an invention were obvious, and held the potential to save millions of dollars, why would it not have been done years before? The fact that it had not, notwithstanding the sizeable potential economic impact, points to the conclusion that the invention was not obvious.

Moreover, the other features claimed in combination lend further patentability to the combination as a whole. For example, clam 2 adds the further patentable features of the

combination of at least one electrical box between the sheets and at least one conduit for wires from the box to the perimeter with the in-situ foam at least partially surrounding the box and the conduit.

Claims 3 and 11 add the further patentable feature of a window opening cut in the sheets with the window opening partially defined by strut members around a perimeter thereof.

Claims 4 and 12 add the further patentable limitation of a window mounted in the window opening with the window having jambs having a thickness of $4 \frac{9}{16}$ " and being mounted in substantially flush alignment as claimed.

Claims 5, 13 and 23 add the further patentable feature of the wall panel having a thermal insulation R-value through a foam containing portion of the thickness of at least 20.

Claims 6, 14 and 21 add the further patentable limitation of a vertical side edge having a male projection member adapted to project into a corresponding female reception member on an adjacent panel.

Claims 7 and 15 add the further patentable feature that the first and second side panels are made from a wood-based material.

Claims 8 and 16 add the further patentable limitation that the in-situ foam is a rigid foam cured in-situ substantially comprising polyurethane.

Claims 9, 17 and 23 add the further patentable limitation that the struts comprise wooden struts having an actual cross-sectional dimension of about $1 \frac{1}{2}$ " by $3 \frac{3}{16}$ ". It is noteworthy that the dimension about $3 \frac{3}{16}$ " is not a conventional lumber dimension, but rather was developed in connection with the present invention in combination with the other claimed features.

Claims 10 and 18 add the further patentable limitation of having a ½" thick dry wall secured adjacent to the second panel having an interior surface that is flush with the jamb member interior edge.

Claim 20 adds the further patentable limitation in the combination of the jamb being 4 9/16".

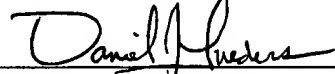
Claim 22 adds the further patentable limitation of a lap joint along an interior surface of corresponding first and second facing sheets wherein polymeric in-situ foam is located between the two lap jointed members.

Claim 23, in addition to the features mentioned above, further adds the patentable limitation that the first and second sheet are each made from 7/16" thick OSB.

None of the foregoing arguments nor amendments to the preamble are to create any restriction of the Doctrine of Equivalence, it being respectfully submitted the claims as filed in their elements enjoy the full scope of the Doctrine of Equivalence. Rather, Applicant submits herewith the Declarations as evidence to the non-obviousness, not to narrow the scope or interpretation of the claims (literally or by equivalence), but rather to demonstrate the non-obviousness of the originally submitted claims. The foregoing is true with respect to the claims as a whole, as well as the claims on an element by element basis, particularly with respect to those elements that are unamended.

If issues remain, Applicant respectfully requests the Examiner to call the undersigned attorney (317-634-3456) to schedule an interview, either telephonic or in person, to advance the prosecution of this case.

Respectfully Submitted,

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APPENDIX A

MARKED UP VERSION OF AMENDED CLAIMS

1. (Amended) A pre-fabricated wall panel usable with a door or window jamb without jamb furring, comprising:

a first, exterior facing sheet of generally rigid material and having a first thickness and a first sheet perimeter;

a second, interior facing sheet of generally rigid material and having a second thickness and a second sheet perimeter, said second sheet being generally parallel to said first sheet and spaced therefrom a strut thickness;

at least two framing struts being located between said first sheet and said second sheet and having said strut thickness to define a panel volume between said first sheet, said second sheet, and said framing struts;

a polymeric in-situ foam core located in and substantially filling said panel volume; and,

an overall panel thickness including the sum of said first thickness, said second thickness and said strut thickness, said overall panel thickness being four inches, plus/minus ¼ inch.

19. (Amended) A building assembly, comprising:

at least two pre-fabricated wall panels usable with a door or window jamb without jamb furring connected to each other, each of said wall panels including

a first, exterior facing sheet of generally rigid material and having a first thickness and a first sheet perimeter;

a second, interior facing sheet of generally rigid material and having a second thickness and a second sheet perimeter, said second sheet being generally parallel to said first sheet and spaced therefrom a strut thickness;

at least two framing struts being located between said first sheet and said second sheet and having said strut thickness to define a panel volume between said first sheet, said second sheet, and said framing struts;

a polymeric in-situ foam core located in and substantially filling said panel volume; and,

an overall panel thickness including the sum of said first thickness, said second thickness and said strut thickness, said overall panel thickness being four inches, plus/minus $\frac{1}{4}$ inch;

a jamb member secured adjacent at least one of said struts; and,

sheets of drywall secured adjacent said second panels, said drywall having an interior surface that is flush with a jamb member interior edge.